note on the writing area, next to the light 316 to the right of 800 Watts, the word "Microwave" 317, or whatever they chose to call the appliance. Once the appliance load level had been displayed for the time period noted, the user display 30 goes back to the normal mode of reporting the GAP levels via the light sequence noted earlier. This same process is repeated for all appliances in the area of the user display. Whenever the home was on the generator, the user checks the level of illuminated lights 316, relative to the level marked (317 on area 315) for the desired appliance, before activating the appliance. If the series of lights 316 is higher than the appliance mark 317, then the user knows the generator can support the additional load of the appliance without tripping the generator circuit breaker. If the light sequence 316 is below the appliance mark 317, the user knows that the appliance cannot be activated at that time, and that they must wait for other loads to cycle off, or be turned off, before there is enough power for the intended appliance. As other loads in the home or facility cycle off and on, or are manually turned off and on, the user display 30 updates the sequence of lights 316 based on the most recent GAP level transmission 17 from the generator monitor 10 in Figure 1. Once the light sequence rises to the level of the desired appliance, the user knows the appliance can be activated without tripping the circuit breaker.

Figure 6b is an enhanced version of the user display 30 in Figure 6a. The user display 30 in Figure 6b has an antenna 312, two plugs 311 and two outlets 310, as does the user display 30 in Figure 6a. The user display 30 in Figure 6b has a screen 320, which depicts the GAP level via a thermometer like graphical display 322. Other gauge like icons could be used as well, such as a pie chart or analog gauge. Independent of the gauge icon, the screen design allows a more continuous reading of the GAP level detected from the transmissions 17 in Figure 1. In addition, the appliance names 323 and 324 appear on the display. The user display 30 could also use icons vs. text, to represent appliances on the display. The user display 30 can also change the appearance of the appliance names or icons based on whether or not the GAP level can support their loads. In Figure 6b the Coffee Maker and Toaster Oven 324 (in this example, both having virtually identical load levels) cannot be supported by the current GAP level displayed on the thermometer graphic 322, and the ∅ symbol appears prior to the Coffee Maker/Toaster Icon 324.

The font of 324 has also changed (different from the font of Microwave Oven Icon 323) to indicate such appliances cannot be activated with the current GAP level. The GAP level however is sufficient to support the load of the Microwave Oven 323. The user display 30 in turn displays 323 in a darker font and without the ∅ symbol. There are numerous options for the presentation of appliance labels, names or icons, which can indicate the ability or inability of the GAP level to support the appliance load. The system of the present invention includes all text and graphical presentations of appliances, using identifiable differences indicating Yes or No based on process comparisons identified in the embodiment of this invention.

The user display 30 in Figure 6b also reports the enable, disable and critical disable status of the interrupt switches 20 in the system. This process is presented in the second flow diagram on the right side of Figure 7a "Interrupt Switch Status Monitoring". On this user display, lights or indicators 328 for the interrupt switches appear at the top one third of the display area. The indicators 325, 326 and 327 on the top row are examples of reference indicators, and are not reporting the status of an interrupt switch. Indicator 325 is that of an enabled appliance, 326 is an indicator of a disabled appliance and 327 is an indicator of an appliance that has been disabled for an extended and/or critically long period of time and is therefore a critical disable indicator. User displays can be designed with different numbers of interrupt switch indicators. In this example of the present invention, the user display 30 has the ability to monitor eight interrupt switches, which are the two vertical rows of four indicators 328 below the top horizontal row of example indicators 325, 326 and 327. The left vertical row of indicators 328 shows from top to bottom the "Well Pump" disabled, the "Refrigerator" critical disabled, the "Sump Pump" enabled and the "Oil Burner" enabled. The status displayed by each indicator on the screen is determined from the corresponding closed/open transmissions received from the assigned interrupt switch 20. The unique switch identifier can be the priority set on each interrupt switch 20, or can be assigned by the user, the installer, or built into the device by the manufacturer. If the switch priority is used as the switch ID the indicator assignment can be built into the user display 30 as shown on the vertical row of four indicators on the right side of the display 329, listing "Switch ID #5", "Switch ID #6",

“Switch ID #7” and “Switch ID #8”. If the interrupt switches use other methods of assigning unique identifiers, the user display 30 must have a method of inputting the unique identifier. The user display 30 also allows the substitution of default label (“Switch ID #_” in Figure 6b) with a label for the appliance supported by the interrupt switch. In Figure 6b, the label “Switch ID #1” has been changed to “Well Pump”, “Switch ID #2” to “Refrigerator”, “Switch ID #3” to “Sump Pump” and “Switch ID #4” to “Oil Burner”. The user display 30 changes the appearance of the light or indicator next to the appliance name, based on the closed and open transmissions received from the interrupt switches.

The user display 30 in Figure 6b can also be set with a time limit, or critical time for each interrupt switch. This time limit can be determined and set by the user or installer for each interrupt switch and is the time period the user considers acceptable for the appliance to go without power. Should the user display 30 detect an open switch transmission from the interrupt switch 20 for a time period greater than the critical time, the user display 30 changes the status indicator next to the appliance accordingly. In Figure 6b for example, the interrupt switch 20 supporting the refrigerator, represented by the second light from the top of the left light row of 328, has been open for a time period greater than the assigned “critical time” and the indicator has been set to a flashing or “Critical Disable” state. Other forms of notification, either visual or audible, are also included within the embodiment of this invention.

Figure 7A shows two flow diagrams for the user display 30 system. The first flow diagram on the left, “GAP Levels for Manual Appliances”, represents the basic function of a user display 30. The second flow diagram on the right, “Interrupt Switch Status Monitoring”, represents an optional process for monitoring interrupt switch 20 status. These two processes operate independently from each other.

On the left flow diagram of Figure 7a, under the title “GAP Levels for Manual Appliances” the process starts in step 351 where the user display 30 is assigned to monitor one of the GAP levels transmitted via transmissions 17 from the generator